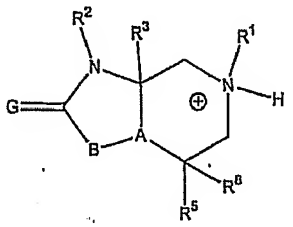
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A compound of the formula:



or a pharmaceutically acceptable salt thereof, wherein:

A is CH or nitrogen;

B is $-CH_2-$, -CHF-, $-CF_2-$, NR_4 or O, with the proviso that when A is N, B is $-CH_2-$, -CHF- or $-CF_2-$;

G is oxygen ~~or =N-CN~~,

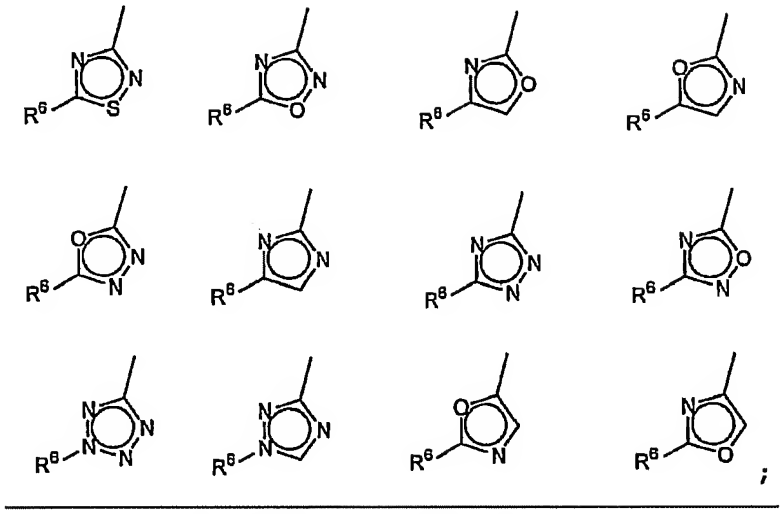
R_1 is hydrogen or C_{1-6} alkyl;

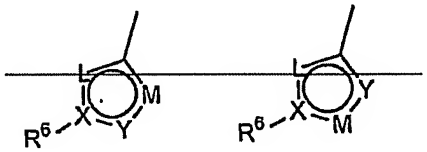
R_2 is C_{1-8} alkyl, $-CH_2$-aryl, or a $-CH_2$-substituted hetero cycle, ~~hydrogen; C_{1-10} alkyl optionally substituted with C_{1-6} alkoxy or halogen; aralkyl, a $-CH_2$ heterocycle or a $-CH_2$ C_5 cycloalkyl ring~~ each of which may be optionally substituted with one or more of halo, hydroxyl, C_{1-6} alkyl, C_{1-6} haloalky, C_{1-8} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl;

R_3 is hydrogen; cyclobutyl, cyclopryl, methyl, ethyl, isopropyl, butyl, sec-butyl~~a cyclic alkyl radical containing from 3-6 carbon atoms or a C_1-C_6 alkyl~~;

R_4 is hydrogen ~~or lower alkyl~~;

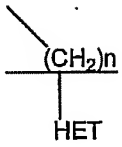
R_5 is a 5-membered unsaturated heterocyclic ring having one of the following structures:





R_6 is methyl, aralkyl, arylamino, aralkyl substituted by one or more halo and having a methylene group linking the aryl to the unsaturated 5-membered ring, aralkyl substituted by one or more halo and having an ethylene group linking the aryl to the unsaturated 5-membered ring;~~where L and M are independently O or N (or NH where the circumstances require) with the proviso that both of L and M cannot be O; Y is S, CH, O or N (or NH where the circumstances require); X is C or N; and~~

~~R6 is lower alkyl; hydrogen; arylamino optionally substituted with one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl; aralkyl optionally substituted with one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl; or a group of formula:~~



~~wherein n is an integer in the range from 1 to 4 and HET is a heterocyclic group optionally substituted with one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl;~~

or R_5 may also be C_2-C_4-aralkyl, -CH_2-O-R_7 where R_7 is C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_2-C_4 aralkyl which groups may be optionally substituted with fluoro or hydroxy; and

R_8 is hydrogen phenyl or halo-substituted phenyl ~~or aryl (optionally substituted with one or more of halo, hydroxyl, C_{1-6} alkyl, C_{1-6} haloalky, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl)~~;

with the proviso that when either R_3 or R_8 is not hydrogen, the other is hydrogen.

2. (cancel)

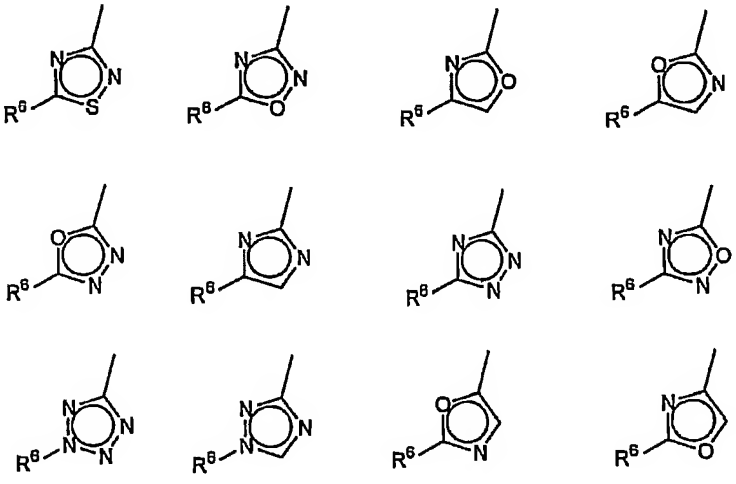
3. (currently amended) A compound according to claim 1~~2~~, wherein

R_1 is H;

R_2 is -CH_2-aryl optionally substituted with one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-8} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkeny1, C_{2-6} alkynyl or C_{2-6} haloalkynyl;

R_3 is hydrogen or cyclobutyl;

R_5 is one of the following 5-membered unsaturated heterocyclic ring structures:



;

R_6 is phenyl, phenylamino substituted by one or more halo, phenylmethyl substituted by one or more halo, or phenethyl substituted by one or more halo; and

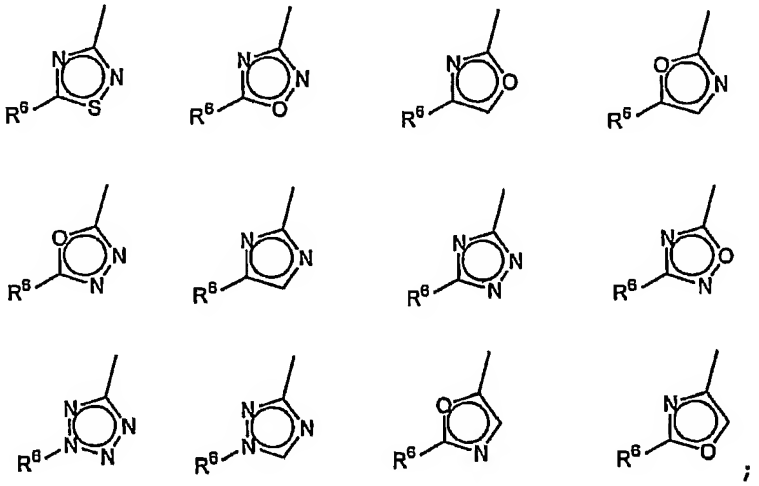
R_8 is hydrogen or a fluoro-substituted phenyl.

4. (currently amended) A compound according to claim 3, wherein

R_2 is $-CH_2-C_6H_5$ or $-CH_2$-heterocyclic aryl each of which may be optionally substituted with one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-8} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl;

R_3 is H;

R_5 is one of the following 5-membered unsaturated heterocyclic ring structures:



;

R_6 is a meta chloro-substituted phenylamino, a meta chloro-substituted phenylmethy or a meta chloro-substituted phenethyl; and

R_8 is 3,5-difluorophenyl.

5. (currently amended) A compound according to claim 1, wherein

A is CH;

B is $-CH_2-$;

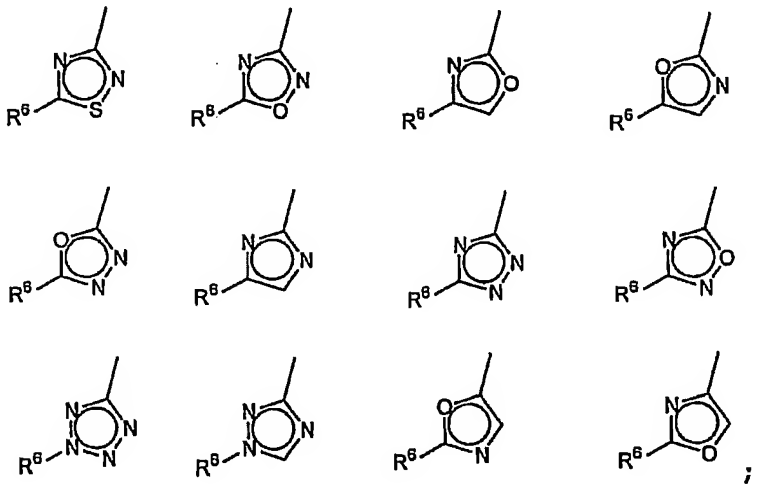
G is oxygen;

R_1 is hydrogen;

R_2 is C_{1-8}~~10~~ alkyl or $-CH_2$-aryl (optionally substituted by one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-8} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkyny);

R_3 is cyclobutyl or H, and~~;~~

R_5 is one of the following 5 -membered unsaturated heterocyclic ring structures:



~~R6 is methyl, aralkyl, arylamino, aralkyl substituted by one or more halo and having a methylene group linking the aryl to the unsaturated 5-membered ring, aralkyl substituted by one or more halo and having an ethylene group linking the aryl to the unsaturated 5-membered ring; and~~

~~R_8 is H or phenyl (optionally substituted with halo).~~

6. (currently amended) A compound according to claim 1, in which A is CH;

B is O;

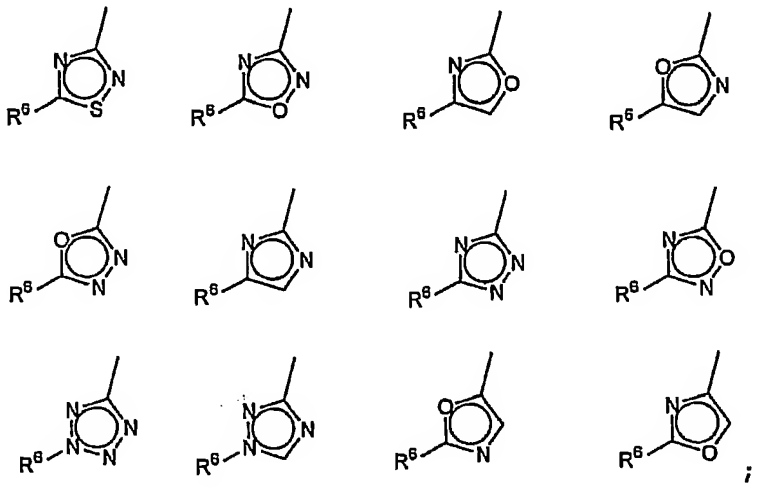
G is oxygen;

R_1 is hydrogen;

R_2 is C_{1-8}~~10~~ alkyl, $-CH_2$-aryl (optionally substituted by one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-8} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl);

R_3 is cyclobutyl or H; and

R_5 is $-CH_2-O-CH_3$, $-CH_2-O-CH_2-CH_2-C_6H_5$ or one of the following 5-membered unsaturated heterocyclic ring structures:



;

~~R_6 is methyl, aralkyl, arylamino, aralkyl substituted by one or more halo and having a methylene group linking the aryl to the unsaturated 5-membered ring, aralkyl substituted by one or more halo and having an ethylene group linking the aryl to the unsaturated 5-membered ring; and~~

~~R_8 is H or phenyl (optionally substituted with halo).~~

7. (currently amended) A compound according to claim 1, wherein .

A is CH; B is NH;

G is oxygen;

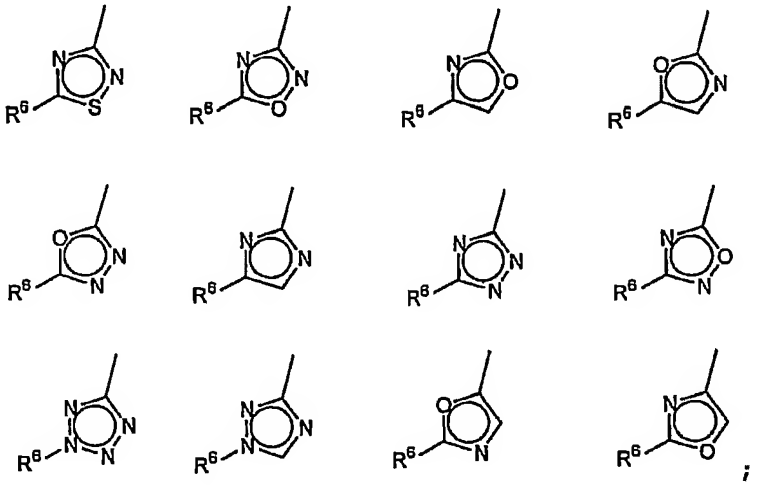
R_1 is hydrogen;

R_2 is C_{1-8}~~10~~ alkyl, $-CH_2$-aryl, a $-CH_2$-heterocyclic group or a $-CH_2$-substituted C_5 cycloalkyl (optionally substituted by one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-8} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl);

R_3 is cyclobutyl or H; and

~~R_4 is hydrogen;~~

R_5 is $-CH_2-O-CH_3$, $-CH_2-O-CH_2-CH_2-C_6H_5$ or one of the following 5-membered unsaturated heterocyclic ring structures:



;

~~R_6 is methyl, aralkyl, arylamno, aralkyl substituted by one or more halo and having a methylene group linking the aryl to the unsaturated 5-membered ring, aralkyl substituted by one or more halo and having an ethylene group linking the aryl to the unsaturated 5-membered ring; and~~

~~R_8 is H or phenyl (optionally substituted with halo).~~

8. (currently amended) A compound according to claim 1, wherein

A is N;

B is $-CH_2-$;

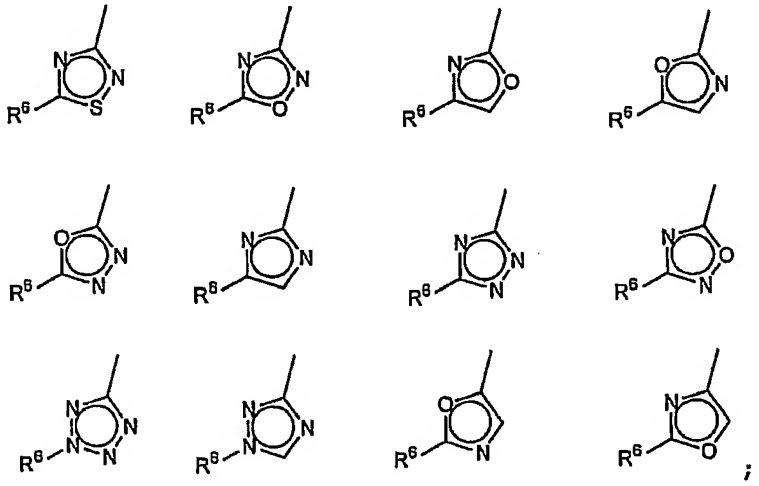
G is oxygen;

R_1 is hydrogen;

R_2 is C_{1-8}~~10~~ alkyl, $-CH_2$-aryl, a $-CH_2$-heterocyclic group or a $-CH_2$-substituted C_5 cycloalkyl (optionally substituted one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-8} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl);

R_3 is cyclobutyl or H;

R_5 is one of the following 5-membered unsaturated heterocyclic ring structures:



~~R_6 is methyl, aralkyl, arylamino, aralkyl substituted by one or more halo and having a methylene group linking the aryl to the unsaturated 5-membered ring, aralkyl, substituted by one or more halo and having an ethylene group linking the aryl to the unsaturated 5-membered ring;~~ and

R_8 is H or phenyl (optionally substituted with halo).

9. (currently amended) A compound according to claim 1, wherein

A is N;

B is $-CH_2-$;

G is oxygen;

R_1 is hydrogen;

R_2 is C_{1-8}~~10~~ alkyl $-CH_2$-aryl, a $-CH_2$-heterocyclic group or a $-CH_2$-substituted C_5 cycloalkyl (optionally substituted by one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalky, C_{1-8} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl);

R_3 is cyclobutyl or H; and

R_5 is $-CH_2-O-CH_3$; ~~and~~

~~R_8 is H or phenyl (optionally substituted with halo).~~

10. (currently amended) A compound according to claim 1,wherein

A is N;

B is $-CH_2-$;

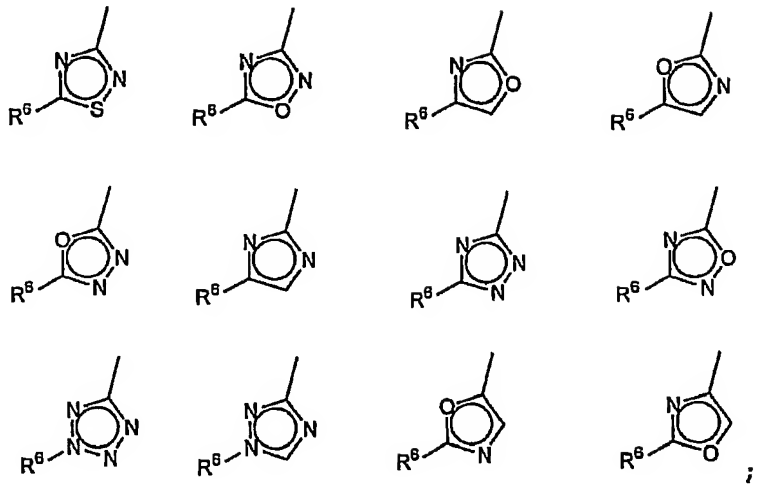
~~G is oxygen;~~

R_1 is hydrogen;

~~R_2 is C_{1-10} alkyl, $-CH_2$-aryl or a $-CH_2$-heterocyclic group, (optionally substituted by one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-8} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl);~~

R_3 is hydrogen or cyclobutyl;

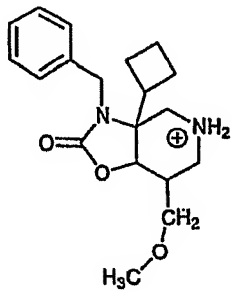
R_5 is one of the following 5-membered unsaturated heterocyclic ring structures:



~~R_6 is methyl, aralkyl, arylamino, aralkyl substituted by one or more halo and having a methylene group linking the aryl to the unsaturated 5-membered ring, aralkyl substituted by one or more halo and having an ethylene group linking the aryl to the unsaturated 5-membered ring~~; and

R_8 is phenyl,3,5-difluorophenyl or H.

11. (original) A compound according to claim 1, having the formula:



12. (previously presented) A pharmaceutical composition comprising a therapeutically effective amount of the compound of claim 1 .

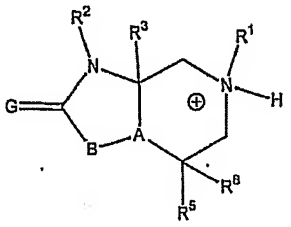
13. (cancel)

14. (currently amended) A method of manufacturing a medicament for the treatment of known symptoms related to a reduction of the cognitive functions of the brain of mammals ~~disorders caused by the malfunction of the acetylcholine or muscarinic systems~~ comprising the step of placing the compound of claim 1 into a pharmaceutical composition in a unit dosage form.

15. (currently amended) The method of claim 14, wherein the treatment~~disorder~~ is for Alzheimer's disease.

16. (currently amended) A method of treatment of symptoms related to a reduction of the cognitive function of the brain in mammals~~disorders caused by the malfunction of the acetylcholine or muscarinic systems~~ comprising the administration of a therapeutically effective amount of a compound as claimed in claim 1 to a subject in need thereof.

17. (new) A compound of the formula:



or a pharmaceutically acceptable salt thereof, wherein:

A is CH or nitrogen;

B is $-CH_2-$, -CHF-, $-CF_2-$, NR_4 or O, with the proviso that when A is N, B is $-CH_2-$, -CHF- or $-CF_2-$;

G is oxygen or =N-CN,

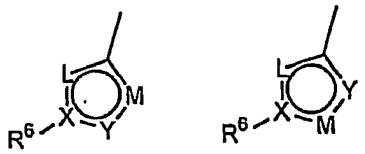
R_1 is hydrogen or C_{1-6} alkyl;

R_2 is hydrogen; C_{1-10} alkyl optionally substituted with C_{1-6} alkoxy or halogen; aralkyl, a $-CH_2$-heterocycle or a $-CH_2-C_5$ cycloalkyl ring each of which may be optionally substituted with one or more of halo, hydroxyl, C_{1-6} alkyl, C_{1-6} haloalky, C_{1-8} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl;

R_3 is a cyclic alkyl radical containing from 3-6 carbon atoms or a C_1-C_6 alkyl;

R_4 is hydrogen or lower alkyl;

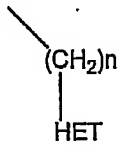
R_5 is a 5-membered unsaturated heterocyclic ring having one of the following structures:



where L and M are independently O or N (or NH where the circumstances require) with the proviso that both of L and M cannot be O; Y is S, CH, O or N (or NH where the circumstances require); X is C or N; and

R6 is lower alkyl; hydrogen; arylamino optionally substituted with one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl,

C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl; aralkyl optionally substituted with one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl; or a group of formula:



wherein n is an integer in the range from 1 to 4 and HET is a heterocyclic group optionally substituted with one or more of halo, hydroxy, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl;

or R_5 may also be C_2-C_4-aralkyl, $-CH_2-O-R_7$ where R_7 is C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_2-C_4 aralkyl which groups may be optionally substituted with fluoro or hydroxy; and

R_8 is hydrogen or aryl (optionally substituted with one or more of halo, hydroxyl, C_{1-6} alkyl, C_{1-6} haloalky, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyl, C_{2-6} haloalkenyl, C_{2-6} alkynyl or C_{2-6} haloalkynyl);

with the proviso that when either R3 or R8 is not hydrogen, the other is hydrogen.